

Custom SSL certificates may be applied and used to support HTTPS services on the Advanced Features units. Configuring custom SSL certificates involves the following considerations:

- 1. Display the Default Services.
- 2. Disable the HTTP Service.
- 3. Enable the HTTPS Service.
- 4. Login to the GUI via HTTPS and Upload the Custom SSL Certificate (PEM file).
- 5. Apply the Custom SSL Certificate.

## **Connect to the Advanced Features**

Connect to the Advanced Features unit. A connection to the unit may be established using two options:

Directly connected to the Console Interface to COM Port using Putty/Serial connection.

Connected via the IP Management Interface using Putty/SSH connection.

#### 1. Display the Default Services

The default services configuration are displayed via the console interface. Use the following procedure to display the default services configuration.

- 1. Press the Return key.
- 2. Enter enable.
- 3. Enter the following command to display the default services configuration.

Switch# show services

Networking services configuration:

Service Name	Status	Port	Protocol	Service ACL
	.+	.+	.+	.+
http	enable	80	ТСР	-
https	disable	443	ТСР	-
rpc-api	disable	-	ТСР	-
telnet	disable	23	ТСР	-
ssh	enable	22	ТСР	-
snmp	disable	161	UDP	-

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### 2. Disable the HTTP Service

1. Enter the following commands to disable the HTTP service.

Switch# configure terminal

Switch(config)# service http disable

Switch(config)# exit

Switch# show services

Networking services configuration:

Service Name	Status	Port	Protocol	Service ACL
	+	+	.+	.+
http	disable	80	ТСР	-
https	disable	443	ТСР	-
rpc-api	disable	-	ТСР	-
telnet	disable	23	ТСР	-
ssh	enable	22	ТСР	-
snmp	disable	161	UDP	-

### 3. Enable the HTTPS Service

1. Enter the following commands to enable the HTTPS service.

Switch# configure terminal

Switch(config)# service https enable

Switch(config)# exit

Switch# show services

Networking services configuration:

Service Name	Status	Port	Protocol	Service ACL
	+	+	+	+
http	disable	80	ТСР	-
https	enable	443	тср	-
rpc-api	disable	-	ТСР	-

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telnet	disable	23	TCP	-
ssh	enable	22	ТСР	-
snmp	disable	161	UDP	-

## 4. Login to the GUI via HTTPS and Upload the Custom SSL Certificate (PEM file)

The PEM file that is uploaded onto the Advanced Features unit must contain the both key.pem and the cert.pem files. The file name must be similar to "key\_AFTest.pem".

key\_AFTest.pem example:

----BEGIN PRIVATE KEY-----

cbhsdabsdahcbsacascakhscbdkndsjnbsdjkcvbskjdcvbskjdbvskdjvbskdvbksdbcskdcbskd bskdbcfcc

ahscbahscbaksdhcbakshcbasdhcbakhbcahscbakhscbakshcbakshcbakhscashscacajscahscakhscb akhscb ahscashcajshcajshcahsc&%VBGFFGBjsxncsjbdb#\$%^^ujdsfbibfwfbwhfbwhbshbvskdhcvbd -----END PRIVATE KEY-----

----BEGIN CERTIFICATE-----

cbhsdabsdahcbsacascakhscbdkndsjnbsdjkcvbskjdcvbskjdbvskdjvbskdvbksdbcskdcbskd bskdbcfcc

ahscbahscbaksdhcbakshcbasdhcbakhbcahscbakhscbakshcbakshcbakhscashscacajscahscakhscb akhscb ahscashcajshcajshcahsc&%VBGFFGBjsxncsjbdb#\$%^^ujdsfbibfwfbwhfbwhbshbvskdhcvbd -----END CERTIFICATE-----

1. Launch the web browser and enter the IP address.

- 2. Login to the GUI, (admin/gtadmin1).
- 3. Select System Management.
- 4. Select Update Management.
- 5. Select the Select image file (Upload files to boot) Choose File.
- 6. Select the "key\_AFTest.pem".
- 7. Select Upload only.
- 8. Select File Management.
- 9. Select the Boot files Tab.
- 10. Verify the new "key\_AFTest.pem".

## 5. Apply the Custom SSL Certificate

1. Select Security.

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2. Select Https Pem\_crt.

The key\_AFTest.pem will be displayed.

Options	Options						
🗎 Http	Https Pern Certificate File Select VOK						
#	Size Last modify	Filename	Current Loaded Pem_crt	Options			

- 3. Select Select.
- 4. Select the Boot files Tab.
- 5. Select the pem file "key\_AFTest.pem".

File				X
Q Fi	lter fi	ilter	Order Filename v Reverse or	der 🗆
Flas	h files	Boot files		
	#	Size	Last modify	Filename
	1	51.144M	2022-11-29 22:01:56	AggregatorOS-AF1G40-v3.0.15-en.bin
	2	1.129K	2022-10-28 15:46:17	F093C5F15E6F.1.lic
<b>Z</b>	3	2.947K	2023-01-04 19:03:19	key_AFTest.pem

∢ок	X Close
·	· · · · · · · · · · · · · · · · · · ·

- 6. Select OK.
- 7. Verify the Https Pem Certificate File, new "key\_AFTest.pem".

Options	\$				
Http	tps Pem Certificate Fil	flash:/boot/key_AFTest.pem	Select VOK		
#	Size	Last modify	Filename	Current Loaded Pem_crt	Options
1	2.947K	2023-01-04 19:03:19	flash:/boot/key_AFTest.pem		£ ♥ 前 ±

8. Select OK.

The Confirm message will be displayed.

	Confirm ×	
	This action will take effect after you restart HTTPS service, do you want to restart HTTPS s ervice now?	
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9. Select Yes.

The HTTPS restart message will be displayed.

	192.168.1.30 says
	The HTTPS certificate will take effect after HTTPS service restarted , please wait for auto jump and login again
	ок
10. Select OK.	
The GUI will refresh.	
11. Login to the GUI, (admin/g	gtadmin1).

12. Select Security.

- 13. Select Https Pem\_crt.
- 14. Verify the Current Loaded Pem\_crt.

Options	,				
Ht	tps Pem Certificate	File	Select VOK		
#	Size	Last modify	Filename	Current Loaded Pem_crt	Options
1	2.947K	2023-01-04 19:03:19	flash:/boot/key_AFTest.pem	✓	E î × S

- 15. Select the Download icon to download the pem file.
- 16. Select the Cancel icon to cancel the current loaded pem file. This will cause the GUI to be restarted back to the login display.
- 17. Select the Backup icon to create a .pem\_BAK file.
- 18. Select the Delete icon to delete the pem file. However, the pem file must be canceled before delete is allowed.